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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/762,585 | 02/09/2001 | Colin Leslie Young | 032642-004 | 5719 |

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EXAMINER

PAK, JOHN D

| ART UNIT | PAPER NUMBER |
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1616

DATE MAILED: 11/05/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,585

Applicant(s)

YOUNG

Examiner

John Pak

Art Unit

1616



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 31, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 55-96 is/are pending in the application.
- 4a) Of the above, claim(s) 96 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 55-88 and 92-95 is/are rejected.
- 7) ☒ Claim(s) 59, 80, and 89-91 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the international Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

Art Unit: 1616

Claims 55-96 are pending in this application.

Applicant's election with traverse of Group I, claims 55-95 in Paper No. 7 (7/31/02) is acknowledged. The traversal is on the ground(s) that combining a soluble oxalate and a soluble metal salt results in a substantially insoluble metal oxalate in Group II, and therefore, unity of invention exists between Groups I and II. This is not found persuasive because, as noted in the previous Office action, the technical feature that Group II may make over the prior art is distinct from the technical feature that Group I may make over the prior art. This is the proper test for lack of unit, which is met herein. Use of solubles to render an insoluble oxalate is clearly a technical feature Group I does not contribute at all. Lack of unity finding is thereby maintained.

The requirement is still deemed proper and is therefore made FINAL. Claim 96 is withdrawn from further consideration as being directed to non-elected subject matter. Claims 55-95 will presently be examined.

Claims 55-75 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for repelling certain specific species of molluscs, does not reasonably provide enablement for repelling various other species of molluscs. The effect of oxalates seems to be species-specific, as evidenced by Chemical Abstracts 91:87852, which shows two species of land snails thriving in substrates treated with calcium oxalate (insoluble in water). Therefore, given such property that is opposite to the claimed property for an insoluble metal oxalate, one skilled in the art would not accept data for one oxalate with one species and extrapolate similar activity for all other molluscs and other insoluble metal

Art Unit: 1616

oxalates. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice and use the invention commensurate in scope with these claims.

Claims 59 and 80 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Dependent claims 59 and 80 read on 100 wt% metal oxalate, but the independent claims from which they depend recite a carrier -- which means that there is no carrier in this aspect of said dependent claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1616

Claims 55-60, 71-72, 74-81 and 92-94 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ikari et al. (EP 485213).

Ikari et al. explicitly disclose antifouling compositions that contain copper oxalate and two other antifoulant-active agents (see claims 2, 10-13). Extended prevention of adhesion of marine organisms such as mussels (mollusc) and fungi on underwater surfaces is disclosed (p. 5, lines 42-45; claims 12-13). Copper oxalate is present in the composition from about 1-50 wt% (claim 11). The composition is to be applied or coated to underwater surfaces (p. 3, lines 9-11; p. 5, lines 50-53); hence a coating composition is clearly disclosed.

While the instant claims recite a mollusc "repellent" and Ikari et al. disclose preventing adhesion of various marine organisms, including molluscs such as mussels, the Examiner's position is that preventing adhesion of molluscs is within the scope of repelling molluscs. Dependent claims 60 and 81 recite 2-10 wt% metal oxalate, but Ikari et al. encompass such weight range in their 1-50 wt% (at least 2 wt% is immediately envisaged from 1-50 wt%).

The claims are thereby anticipated, or in the alternative rendered obvious within the meaning of section 103(a) because the cited reference expressly discloses compositions that contain all of the required ingredients within the claimed percentages for the same utility.

Claims 55-67, 71-72, 74-88 and 92-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikari et al.

Art Unit: 1616

Teachings of Ikari et al. have already been discussed in the above ground of rejection. For this ground of rejection, the above discussion is incorporated herein to avoid repetition, and the following additional teachings are noted. Ikari et al. further teach incorporation of additives such as pigments, conventional paints, extenders, suspending agents, anti-dripping agents, levelling agents (p. 5, lines 29-31), resins, solvents, conventional coating materials (p. 5, lines 37-41 & 50-53). Ikari et al. also discloses fouling problems in various inanimate surfaces such as ship hulls and cooling systems that use seawater (p. 2, lines 8-21).

While Ikari et al. do not explicitly disclose a copper oxalate containing formulation as an aqueous suspension, incorporation of fungicide and specific carriers of dependent claim 95, such features and the claimed invention as a whole would nonetheless have been obvious to the ordinary skilled artisan. Conventional paint formulation is disclosed and that fairly suggests both oil-based and water-based formulations. Suspending agent as an additive, particularly in view of insolubility of copper oxalate suggests aqueous suspension. Additional fungicide is suggested from the fact that Ikari et al. disclose control of fungal problems as part of controlling fouling (p. 5, line 44): Ikari's specific teaching to add another antifoulant (p. 5, line 33) would have fairly suggested adding an active agent that possesses fungicidal properties.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly suggested by the teachings of the cited reference.

Art Unit: 1616

Claims 89-91 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, pending an update of search at the time of the next Office action.

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier numbers for accessing the facsimile machines are (703) 308-4556 or (703) 305-3592.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Pak whose telephone number is (703) 308-4538. The Examiner can normally be reached on Monday through Friday from 7:30 AM to 4 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. José Dees, can be reached on (703) 308-4628.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1235.



JOHN PAK
PRIMARY EXAMINER
GROUP 1600